



Amendments to the Claims

This listing of claims will replace all prior versions, and listings, of claims in the application:

LISTING OF CLAIMS:

1. (Currently Amended) A motor torque control system for a vehicle equipped with a motor, comprising:

a vehicle speed sensor that detects a vehicle speed;

an accelerator opening detector that detects an opening of an accelerator of the vehicle;

a brake depression detector that detects a brake ~~manipulated~~ depression quantity indicative of a depression state of a brake of the vehicle; and

a control unit coupled to the vehicle speed sensor, the accelerator opening detector, and the brake depression detector, the control unit being arranged to bring a motor torque of the motor to zero when the vehicle speed is lower than a predetermined speed, when the accelerator opening is substantially zero, and when ~~the brake depression state is set at a braking-increasing state increasing a braking force of the vehicle~~ a differential of the brake depression quantity is positive, and to generate motor torque according to the brake ~~manipulated depression~~ quantity when ~~the brake depression state is set at a braking-decreasing state decreasing the braking force of the vehicle~~ the differential of the brake depression quantity is negative.

2. (Currently Amended) The motor torque control system as claimed in claim 1, wherein the control unit is further arranged to control the motor torque when the differential of the brake depression quantity ~~one of the braking-increasing state and the braking-decreasing state~~ is maintained as positive or negative for a predetermined time period.

3. **(Currently Amended)** The motor torque control system as claimed in claim 1, wherein the control unit is further arranged to increase a rate of change of the motor torque according to an increase of the brake ~~manipulated~~ depression quantity when ~~the brake depression state is set at the braking decreasing state~~ the differential of the brake depression quantity is negative.

4. **(Withdrawn – Currently Amended)** The motor torque control system as claimed in claim 3, wherein the control unit is further arranged to generate the motor torque under the braking decreasing state only when the brake ~~manipulated~~ depression quantity is greater than a predetermined value and when a vehicle stop state is maintained for a predetermined time period, and to generate the motor torque regardless of the vehicle speed when the brake ~~manipulated~~ depression quantity is smaller than or equal to the predetermined value.

5. **(Canceled)**

6. **(Currently Amended)** The motor torque control system as claimed in claim 1, wherein the control unit is further arranged to determine the motor torque $tTrq$ generated according to the brake ~~manipulated~~ depression quantity from the following expression (1):

$$tTrq = (tTrqCreep - tTrq_{(n-1)}) \times rate + tTrq_{(n-1)} \quad - - - (1)$$

where $tTrq_{(n-1)}$ is a torque obtained in a previous execution, $tTrqCreep$ is a creep running target torque, and rate is a variable which decreases from 1 to 0 in approximately inverse proportion according to an increase of the brake ~~manipulated~~ depression quantity.

7. **(Currently Amended)** The motor torque control system as claimed in claim 1, wherein the control unit is further arranged to bring the motor torque to zero with a steep gradient of the motor torque to the brake ~~manipulated~~ depression quantity which is largely steeper than a gradient of the motor torque to the brake ~~manipulated~~ depression quantity, which is employed when ~~the brake depression state is set at the braking decreasing state~~ differential of the brake depression quantity is negative.

8. **(Currently Amended)** A method of controlling a motor torque of a motor for driving a vehicle, comprising:

detecting a vehicle speed;

detecting an opening of an accelerator of the vehicle;

detecting a brake ~~manipulated~~ depression quantity of a brake of the vehicle;

bringing the motor torque to zero when the vehicle speed is lower than a predetermined speed, when the accelerator opening is substantially zero, and when ~~the brake manipulated quantity is increasing~~ a differential of the brake depression quantity is positive; and

generating the motor torque according to the brake ~~manipulated~~ depression quantity when ~~the brake manipulated quantity is decreasing~~ the differential of the brake depression quantity is negative.

9. **(Currently Amended)** A motor torque control system for a vehicle, comprising:

a motor that generates a motor torque for driving the vehicle;

a vehicle speed sensor that detects a vehicle speed;

an accelerator opening detector that detects an accelerator opening of an accelerator of the vehicle;

a brake depression detector that detects a brake ~~manipulated~~ depression quantity of a brake of the vehicle; and

a control unit coupled to the motor, the vehicle speed sensor, the accelerator opening detector, and the brake depression detector, the control unit being arranged to bring the motor torque to zero when first, second and third conditions are satisfied,

wherein the first condition is that the vehicle speed is lower than a predetermined speed, the second condition is that the accelerator opening is substantially zero, and the third condition is that ~~the brake manipulated quantity is increasing~~ a differential of the brake depression quantity is positive, and

wherein the control unit is arranged to generate the motor torque according to the brake ~~manipulated~~ depression quantity when ~~the brake manipulated quantity is decreasing~~ the differential of the brake depression quantity is negative.

10. (Currently Amended) A motor torque control system for a vehicle equipped with a motor, comprising:

vehicle speed detecting means for detecting a vehicle speed;

accelerator opening detecting means for detecting an opening of an accelerator of the vehicle;

brake depression detecting means for detecting a brake ~~manipulated~~ depression quantity indicative of a depression state of a brake of the vehicle;

first controlling means for bringing a motor torque of the motor to zero when the vehicle speed is lower than a predetermined speed, when the accelerator opening is substantially zero, and when ~~the brake depression state is set at a braking increasing state of increasing a braking force of the vehicle~~ a differential of the brake depression quantity is positive; and

second controlling means for generating the motor torque according to the brake ~~manipulated~~ depression quantity when ~~the brake depression state is set at a braking decreasing state of decreasing a braking force of the vehicle~~ the differential of the brake depression quantity is negative.

11. (Previously Presented) A motor torque control system for a vehicle equipped with a motor, comprising:

a vehicle speed sensor adapted to sense a phenomenon indicative of vehicle speed;

an accelerator sensor adapted to sense a phenomenon indicative of a command to accelerate the vehicle;

a braking force sensor adapted to sense a phenomenon indicative of at least one of a command increasing magnitude and a command decreasing magnitude of a brake force of the vehicle; and

a control unit in communication with the vehicle speed sensor, the accelerator sensor, and the braking force sensor, wherein the control unit is adapted to control the motor to bring motor torque of the motor to zero when (i) the vehicle speed sensed is lower than a predetermined speed, (ii) the phenomenon indicative of a command to accelerate the vehicle has not been sensed, and (iii) the command increasing the magnitude of the brake force has been sensed, and wherein the control unit is adapted to control the motor to output motor

torque of the motor when a command decreasing the magnitude of the brake force has been sensed.

12. (Previously Presented) The motor torque control system as claimed in claim 11, wherein the control unit is further adapted to control the motor torque when at least one of the commands increasing and decreasing the magnitude of the brake force has been sensed for a predetermined time period.